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5 93503

EXAMINER

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18M2/0724

ART UNIT PAPER NUMBER

10

1814

DATE MAILED:

07/24/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined *for restriction purposes only* Responsive to communication filed on _____ This action is made final.

A shortened statutory period for response to this action is set to expire 0 month(s), 30 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. Notice of References Cited by Examiner, PTO-892.
2. Notice of Draftsman's Patent Drawing Review, PTO-948.
3. Notice of Art Cited by Applicant, PTO-1449.
4. Notice of Informal Patent Application, PTO-152.
5. Information on How to Effect Drawing Changes, PTO-1474.
6. _____

Part II SUMMARY OF ACTION

1. Claims 1-35 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. Claims _____ have been cancelled.

3. Claims _____ are allowed.

4. Claims _____ are rejected.

5. Claims _____ are objected to.

6. Claims 1-35 are subject to restriction or election requirement.

7. This application has been filed with informal drawings under 37 C.F.R. 1.65 which are acceptable for examination purposes.

8. Formal drawings are required in response to this Office action.

9. The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).

11. The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).

12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. _____; filed on _____.

13. Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. Other

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Part III DETAILED ACTION

1. Claims 8, 9 and 10 appear to have been made dependent upon
the wrong claims. Rather than being dependent upon claims 3, 4
and 5, as is now the case, it appears that they should be
5 dependent upon claims 2, 3 and 4, respectively. Appropriate
correction is required.

Election/Restriction

10 2. Restriction to one of the following inventions is required
under 35 U.S.C. 121:

Group I. Claims 2, 8, 11 and 12, drawn to a nucleic acid
encoding EAAT1, a hybridization probe, a recombinant expression
construct and a transformed cell culture, classified in Class
15 435, subclass 69.1.

Group II. Claims 3, 9, 13 and 14, drawn to a nucleic acid
encoding EAAT2, a hybridization probe, a recombinant expression
construct and a transformed cell culture, classified in Class
435, subclass 69.1.

20 Group III. Claims 4, 10, 15 and 16, drawn to a nucleic acid
encoding EAAT3, a hybridization probe, a recombinant expression
construct and a transformed cell culture, classified in Class
435, subclass 69.1.

Group IV. Claim 5, drawn to a homogeneous composition of

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EAAT1, classified in Class 530, subclass 350.

Group V. Claim 6, drawn to a homogeneous composition of EAAT2, classified in Class 530, subclass 350.

Group VI. Claim 7, drawn to a homogeneous composition of
5 EAAT3, classified in Class 530, subclass 350.

Group VII. Claims 17 and 18, drawn to a method of screening a compound as an inhibitor of EAAT1, 2 or 3, classified in Class 435, subclass 6.

Group VIII. Claims 19-23 and 31-35, drawn to antibodies to
10 mammalian transporters, classified in Class 530, subclass 387.1.

Group IX. Claims 24, 26, 27 and 28, drawn to a nucleic acid encoding ASCT1, a hybridization probe, a recombinant expression construct and a transformed cell culture, classified in Class 435, subclass 69.1.

15 Group X. Claim 25, drawn to a homogeneous composition of ASCT1, classified in Class 530, subclass 350.

Group XI. Claims 29 and 30, drawn to a method of screening a compound as an inhibitor of ASCT1, classified in Class 435, subclass 6.

20 The inventions are distinct, each from the other because of the following reasons:

3. Inventions I and II are disclosed as different combinations which are not connected in design, operation or effect. These

combinations are independent if it can be shown that (1) they are not disclosed as capable of use together, (2) they have different modes of operation, (3) they have different functions, or (4) they have different effects. (MPEP 806.04, MPEP 808.01). In the 5 instant case the combinations are nucleic acids encoding different proteins.

4. Inventions I and III are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 10 806.04, MPEP 808.01. In the instant case the combinations are nucleic acids encoding different proteins.

5. Inventions I and IV are related as process of making and product made. The inventions are distinct if either or both of 15 the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (M.P.E.P. § 806.05(f)). In the instant case a homogeneous composition of EAAT1 could be made by protein 20 synthesis or by purification from natural sources, as opposed to the recombinant method of group I.

6. Inventions I and V are disclosed as different combinations which are not connected in design, operation or effect. See MPEP

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806.04, MPEP 808.01. In the instant case, group I contains a nucleic acid which encodes a different protein from that of group V.

5 7. Inventions I and VI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group I contains a nucleic acid which encodes a different protein from that of group VI.

10

8. Inventions I and VII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the recombinant methods of group I have a different utility, that of making large amounts of protein, separate from the screening method of group VII.

20 9. Inventions I and VIII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the recombinant methods of group I have a different utility, that of making large amounts of protein, separate from the use of the antibodies of group VIII.

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10. Inventions I and IX are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case the combinations are nucleic acids encoding different proteins.

5

11. Inventions I and X are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group I contains a nucleic acid which encodes a different protein from that of group
10 X.

10

12. Inventions I and XI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group I contains a
15 nucleic acid which encodes a different protein from that of the screening method of group XI.

15

13. Inventions II and III are disclosed as different combinations which are not connected in design, operation or
20 effect. See MPEP 806.04, MPEP 808.01. In the instant case the combinations are nucleic acids encoding different proteins.

20

14. Inventions II and IV are disclosed as different combinations which are not connected in design, operation or effect. See MPEP

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806.04, MPEP 808.01. In the instant case, group II contains a nucleic acid which encodes a different protein from that of group IV.

5 15. Inventions II and V are related as process of making and product made. See M.P.E.P. § 806.05(f). In the instant case a homogeneous composition of EAAT2 could be made by protein synthesis or by purification from natural sources, as opposed to the recombinant method of group II.

10

16. Inventions II and VI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group II contains a nucleic acid which encodes a different protein from that of group

15 VI.

17. Inventions II and VII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the recombinant methods of group II have a different utility, that of making large amounts of protein, separate from the screening method of group VII.

20 18. Inventions II and VIII are disclosed as different

combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the recombinant methods of group II have a different utility, that of making large amounts of protein, separate from the use of the
5 antibodies of group VIII.

19. Inventions II and IX are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case the combinations are
10 nucleic acids encoding different proteins.

20. Inventions II and X are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group II contains a
15 nucleic acid which encodes a different protein from that of group X.

21. Inventions II and XI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group II contains a
20 nucleic acid which encodes a different protein from that of the screening method of group XI.

22. Inventions III and IV are disclosed as different

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combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group III contains a nucleic acid which encodes a different protein from that of group IV.

5

23. Inventions III and V are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group III contains a nucleic acid which encodes a different protein from that of group
10 V.

10

24. Inventions III and VI are related as process of making and product made. See M.P.E.P. § 806.05(f). In the instant case a homogeneous composition of EAAT3 could be made by protein
15 synthesis or by purification from natural sources, as opposed to the recombinant method of group III.

15

25. Inventions III and VII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the recombinant methods of group III have a different utility, that of making large amounts of protein, separate from the screening
20 method of group VII.

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26. Inventions III and VIII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the recombinant methods of group III have a different utility, that of making large amounts of protein, separate from the use of the antibodies of group VIII.

27. Inventions III and IX are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case the combinations are nucleic acids encoding different proteins.

28. Inventions III and X are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group III contains a nucleic acid which encodes a different protein from that of group X.

29. Inventions III and XI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group III contains a nucleic acid which encodes a different protein from that of the screening method of group XI.

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30. Inventions IV and V are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, groups IV and V are different proteins.

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31. Inventions IV and VI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case groups IV and VI are different proteins.

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32. Inventions IV and VII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case the protein of group IV has other utilities, such as immunizing animals, in addition to the screening method of group VII.

15

33. Inventions IV and VIII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the protein of group IV is usable in activity assays, separate from the creation of the antibodies of group VIII.

20

34. Inventions IV and IX are disclosed as different combinations which are not connected in design, operation or effect. See MPEP

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806.04, MPEP 808.01. In the instant case, group IX contains a nucleic acid which encodes a different protein from that of group IV.

5 35. Inventions IV and X are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, groups IV and X are different proteins.

10 36. Inventions IV and XI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group IV contains a protein different from that used in the screening method of group XI.

15

37. Inventions V and VI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, groups V and VI are different proteins.

20

38. Inventions V and VII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case the protein of group V has other utilities, such as immunizing animals, in addition to

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the screening method of group VII.

39. Inventions V and VIII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the protein of group V is usable in activity assays, separate from the creation of the antibodies of group VIII.

40. Inventions V and IX are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group IX contains a nucleic acid which encodes a different protein from that of group V.

41. Inventions V and X are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, groups V and X are different proteins.

42. Inventions V and XI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group V contains a protein different from that used in the screening method of group XI.

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43. Inventions VI and VII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case the protein of group VI has other utilities, such as immunizing animals, in addition to the screening method of group VII.

5
44. Inventions VI and VIII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the protein of group VI is usable in activity assays, separate from the creation of the antibodies of group VIII.

10
15
45. Inventions VI and IX are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group IX contains a nucleic acid which encodes a different protein from that of group VI.

20
46. Inventions VI and X are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, groups VI and X are different proteins.

47. Inventions VI and XI are disclosed as different combinations

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which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, group VI contains a protein different from that used in the screening method of group XI.

5

48. Inventions VII and VIII are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the screening method of group VII does not use the antibodies of 10 group VIII.

49. Inventions VII and IX are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the 15 screening method of group VII does not use the recombinant DNA method of group IX.

50. Inventions VII and X are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the screening method 20 of group VII does not use the protein of group X.

51. Inventions VII and XI are disclosed as different combinations which are not connected in design, operation or

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effect. See MPEP 806.04, MPEP 808.01. In the instant case, the screening method of group VII does not use the screening method of group XI.

5 52. Inventions VIII and IX are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the recombinant methods of group IX have a different utility, that of making large amounts of protein, separate from the use of the
10 antibodies of group VIII.

53. Inventions VIII and X are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the
15 protein of group X is usable in activity assays, separate from the creation of the antibodies of group VIII.

54. Inventions VIII and XI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the screening method of group IX does not use the antibodies of group
20 VIII.

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55. Inventions IX and X are related as process of making and product made. See M.P.E.P. § 806.05(f). In the instant case, a homogeneous composition of ASCT1 could be made by protein synthesis or by purification from natural sources, as opposed to 5 the recombinant method of group IX.

56. Inventions IX and XI are disclosed as different combinations which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case, the recombinant 10 methods of group IX have a different utility, that of making large amounts of protein, separate from the screening method of group XI.

57. Inventions X and XI are disclosed as different combinations 15 which are not connected in design, operation or effect. See MPEP 806.04, MPEP 808.01. In the instant case the protein of group X has other utilities, such as immunizing animals, in addition to the screening method of group XI.

20 58. Because these inventions are distinct for the reasons given above and the search required for any one of the Groups is not required for any other, restriction for examination purposes as indicated is proper.

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59. Claim 1 links inventions I, II and III. Should any of these groups be chosen, claim 1 will be examined to the extent it relates to that group.

5 60. If group VII is elected, further election of species is required as follows:

This application contains claims directed to the following patentably distinct species of the claimed invention: a screening assay involving EAAT1, EAAT2 or EAAT3.

10 Applicant is required under 35 U.S.C. § 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 17 and 18 are generic.

15 Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

20 Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the 25 inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103 of the other invention.

30 61. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.

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62. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

5

10 63. Any inquiry concerning this communication or earlier communications should be directed to Lisa J. Hobbs whose telephone number is (703) 308-6573.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Wax, can be reached at (703) 308-4216.

15 Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

20 Certain papers related to this application may be submitted to Group 1800 by facsimile transmission to the attention of the examiner in Art Unit 1814. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (October 19, 1988) and 1157 OG 94 (December 28, 1993) (see 37 CFR § 1.6(d)). The FAX telephone number is (703) 305-
25 7401. Note: If applicants do submit a paper by facsimile, the original signed copy should be retained by applicants or applicants' representative. No duplicate copies should be submitted so as to avoid the processing of duplicate papers in the Office.

30



35 Lisa J. Hobbs, Ph.D.
July 18, 1995



ROBERT A. WAX
SUPERVISORY PATENT EXAMINER
GROUP 180